REGENT'S

SmartSense

BRAKE or CLUTCH STATUS MONITOR

Features

- Percent wear display to know exactly how worn your brake or clutch is

  ‣ no guessing when to replace brake or clutch
  ‣ save maintenance & down time cost by not replacing too early
  ‣ no worry of brake failure by replacing too late

- Adjustable full voltage time for fast brake turn-off (release)

- Adjustable holding voltage

  ‣ saves energy
  ‣ reduces heat build-up
  ‣ lowers power consumption

- Output signal for remote monitoring of armature movement

  ‣ enhance positioning & stopping
  ‣ eliminate overlap between brake dis-engagement and motor starting

- All-solid-state, no relays or contacts to fail. Reliable operation 24 hours a day, 365 days a year

- LED load indicator with brightness proportional to brake voltage

- LED warning indicator when fewer than 1,000 cycles of brake or clutch life remain

The SmartSense Brake or Clutch Status Monitor is a solid-state fast-response control for 90 or 24 VDC spring brakes.

A display of the percent worn on the brake or clutch improves safety and reduces costs. By knowing how worn your brake is you can determine exactly when to replace it; not too early resulting in unnecessary down time and maintenance costs or too late resulting in catastrophic failure.

Also, brake or clutch performance is optimized by an adjustable full voltage time for fast coil energization for brake release and an adjustable holding voltage to reduce power consumption and coil heating while the brake is held off, allowing for faster brake engagement when coil voltage is removed.

Additional features include an LED to warn when fewer than 1,000 cycles remain on your brake and a 24V output signal when brake movement has begun for remote monitoring.

PART NUMBER BUILDER

SmartSense — Series Name
    SmartSense24 for 24V brakes or clutches
    SmartSense90 for 90V brakes or clutches
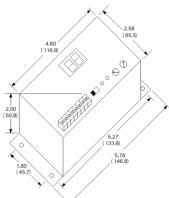   *coming soon

FOR MORE INFORMATION CALL 203-732-6200

e-mail: sales@regentcontrols.com

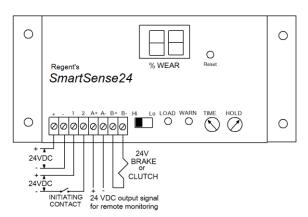**OR VISIT US ONLINE AT www.regentcontrols.com**

Regent's *SmartSense*
Brake or Clutch Control

DIMENSIONS

WIRING DIAGRAM

OPERATION (refer to WIRING DIAGRAM)

-Initial Setup to be done when setting up a new load (i.e. brake or clutch) for the 1ˢᵗ time

1. Set "Lo,Hi" switch appropriate for load (Lo ≤ 20W, Hi > 20W)

<u>WARNING</u>: Improper switch setting may damage the SmartSense control.

2. Apply power to +,- terminals.
3. With "HOLD" knob at max (fully clockwise), apply voltage to 1,2 terminals and allow load to warm up for 20 minutes.
4. Remove voltage from 1,2 terminals and press "Reset" button.
5. Re-apply voltage to 1,2 terminals;
    - "LOAD" LED should turn on and wear display should read 0%
6. Remove voltage from 1,2; "LOAD" LED should turn off.

-Normal operation

1. Apply power to +,- terminals;
    - "LOAD" LED & load should be off & "% WEAR" should read 00.
2. When signal is applied to 1,2 terminals;
    - Load should turn on fully & "LOAD" LED should turn on full brightness for a duration set by "TIME"
    - A+,A- 24V output should turn on at 1ˢᵗ armature movement
    - After full voltage time, load voltage should reduce to voltage set by "HOLD" & LED should dim proportionally
3. When signal is removed from 1,2 terminals;
    - Load, "LOAD" LED & A+,A- output should turn off
    - "% WEAR" will update on next cycle

NOTES: 1. "WARN" LED will turn on when fewer than 1,000 cycles of brake or clutch life remain.
2. Pressing RESET erases all previous wear data and resets control with current data as new baseline.
3. Please contact Regent Controls for brakes or clutches ≤ 6W.

SPECIFICATIONS	*SmartSense24*	*SmartSense90**
LINE INPUT (+,- or L1,L2)		
Voltage	24 VDC +/-10%	120 VAC +/- 20%, 50/60 Hz
Current	Sufficient for load	Sufficient for load
LOGIC INPUT (1,2)		
Voltage	24 VDC +/-10%	24 VDC +/-10%
Current	25 mA burden	25 mA burden
LOAD OUPUT (B+,B-)		
Full voltage	24 VDC	105 VDC
Full voltage time	Adjustable, 0-2 sec	Adjustable, 0-2 sec
Holding voltage	Adjustable, 5-60% of load voltage	Adjustable, 5-60% of load voltage
Coil wattage	90 W max	200 W max
Off-state leakage	<500 uA	<500 uA
SIGNAL OUTPUT (A+,A-)	24 VDC, 0.5A max	24 VDC, 0.5A max

*coming soon

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